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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,954	12/21/2000	Huang Lei	Q62391	6290

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EXAMINER

DESIRE, GREGORY M

ART UNIT PAPER NUMBER

2625

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/740,954

Applicant(s)

LEI, HUANG

Examiner

Gregory M. Desire

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,12-14,19,20,22 and 23 is/are rejected.
- 7) ☒ Claim(s) 3-6,9-11,15-18 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/24/05 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez and Hanco et al. (6,493,041).

Regarding claims 1 and 13 Martinez discloses,

Mean for obtaining information about changes in gray level value between said plurality of images (note fig. 3b block 314, cites obtaining pixel difference interpreted as changes in gray level value); and

Martinez is silent determining timing for selecting at least one of said plurality of images based on results from said information. However, Hanco determines timing for

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selecting an image (note fig. 1 block 170 in connection with col. 8 lines 64 – col. 9 lines 4). Images are selected base on motion, which is a function of time.

Therefore it would have been obvious to one having ordinary skills in the art to determine timing for selecting images in the system of Martinez as evidenced by Hanco. Martinez obtains changes in gray level value and Hanco in the same field of endeavor provides a simple and inexpensive method to select an image to effectively process at real-time (note col. 2 lines 25-30).

As to, wherein said selection is based on a result from said obtained information (note col. 4 lines 14-20, fig. 1 and col. 9 lines 1-4, lines cite selection of frame based on previous step which includes finding difference value (obtained information) a previous step before selection a new reference frame).

4. Claims 2, 7, 8, 12, 14, 19, 20 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martinez and Hanco et al. (6,493,041) and further view of Wilkins (6,650,366).

Regarding claims 2 and 14 Martinez and Hanco discloses,

Means for obtaining information compares said gray level value of pixels in an image of said plurality of image with similarly positioned pixels in another image of said plurality of images, and obtains a number of pixels, wherein said gray level value has a change (note Martinez fig. 3b counting number of pixel that changes). However, silent specifically describing changes as counting number of grey value increase and gray level value have decreased. Wilkins count number of grey level increase and grey level

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decrease (note col. 6 lines 50-55), producing a statistical profile used for further processing and complement image processing and analysis techniques (note col. 1 lines 36-50). Therefore it would have been obvious to one having ordinary skills in the art to include counting grey level increase and decrease in Martinez and Hanco.

Complement analysis techniques would have been a desirable feature in Martinez and Hanco do to their comparison methods. Wilkins recognized complementing techniques would be beneficial in processing field.

Regarding claims 7 and 19 Martinez, Hanco and Wilkins discloses,

Wherein said plurality of images comprise at least two successive images, which have been successively picked up by, said image pick-up apparatus (note Martinez, col. 5 line 65- col. 6 line 4). Series of slices denote successive images.

Regarding claims 8 and 20 Martinez, Hanco and Wilkins discloses,

Wherein a first image from said at least two successive images is a first frame and a second image from said at least two images is a second frame (note Martinez, col. 6 lines 5-10).

Regarding claims 12 and 23 Martinez, Hanco and Wilkins discloses,

Wherein said image processing comprises a fingerprint image data processing (note Martinez, fig. 1).

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Regarding claim 22 Martinez, Hanko and Wilkins discloses,

Comparing said gray level value of each of one of said pixels of said first frame with a gray level value of each of one similarly positioned pixel of said second frame (note Martinez, fig. 3c block 320).

Allowable Subject Matter

5. Claims 3-6, 9-11, 15-18 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: Regarding claims 3, 5, 15 and 17, further limiting of timing deciding means is not taught in the prior art.

Regarding claims 4, 6, 16 and 18, claims include timing deciding means including comparison of absolute value of difference.

Regarding claims 9 and 21, claims further limit the invention to include first memory, second memory, data processing, pixel number counting means and timing deciding means. Claims 10 and 11 are dependent on claim 9.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703)

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308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G.D.
February 4, 2005

Gregory M. Desire
Examiner
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